

XI. *Descriptions of some new Genera of British Homoptera.* By R. H. LEWIS, Esq., M.E.S.

[Read February 3, 1834.]

IDIOCERUS*. Plate VII. fig. 2.

CAPUT thorace latius; vertex perbrevis arcuatus medio brevissimus. *Facies* subturbinata. *Oculi* magni. *Ocelli* 2 in facie, inter oculos dispositi. *Antennæ* triarticulate, in facie inter oculorum marginem inferiorem insertæ; articulus primus brevissimus, secundus cylindricus, ultimus setiformis, in mare apicem versus in clavam subovatam compressam dilatatus. *Prothorax* transversus, subovatus, posticè excisus. *Scutellum* magnum, trigonum. *Alæ* superiores corpore multo longiores, apice sese involventes. *Tibiæ* posticæ valdè spinosæ et ciliatæ.

Head broader than the thorax; the *vertex* very short, with the anterior margin slightly convex, the posterior very concave. *Face* subturbinate. *Eyes* very large. *Ocelli* 2, placed in the face between the eyes, to which they are a little closer than to each other. (Fig. 2, a.) *Antennæ* inserted in slight depressions or excavations between the inferior margin of the eyes; the first joint very short, the second short, cylindric, the last long, setiform, with two lateral bristles near the base; in the male, towards the apex, dilated into a nearly oval, much compressed club, with the apex very slender. (Fig. 2, b.)† *Rostrum* about as long as the prothorax. *Prothorax* transverse, ovate, posteriorly excised. *Scutellum* large, trigonate. *Superior wings* much longer than the abdomen, of a membranaceous texture; their extremities dilated internally, and one covering the other; the nervures completed, without extending far into the internal dilated portion, leaving there a margin of pure membrane. (Fig. 2, c.) *Ovipositor* short, slightly curved upwards. (Fig. 2, d.) *Anterior* and *intermediate tibiæ* very short; the anterior internally, densely, and finely ciliated; the intermediate internally, with a few fine ciliæ. *Posterior tibiæ* long, slightly curved, somewhat prismatical; externally, with the

* ἰδιος peculiaris, κέρασ cornu.

† I have stated the antennæ to be three-jointed; I think it not improbable, however, that the base of the seta, which bears the lateral bristles, may be a distinct joint.

superior margin densely clothed with spinulæ; the inferior margin with seven or eight spines, gradually increasing in size from the base of the tibia to the apex; internally, with a scanty row of spinulæ, directed downwards, and a very dense row of fine cilia, directed inwards; the apex surrounded with small spines. *Tarsi* triarticulate; the anterior with the terminal joints, and the posterior with the basal joints longest.

Allied to *Agallia*, Curt., *Bythoscopus*, Germ.*, &c.; but the form of the head and apex of the anterior pair of wings will readily distinguish it from these. The very remarkable form of antennæ of the male does not, I believe, exist in any other Homopterous genus, nor have I found it noticed by any author. In addition to this, the males of some species possess another peculiarity: the costa is in the middle incrassated and obtusely dentate (fig. 1, *c.*); in others it is simply incrassated, and in others simple. As far as I have been able to ascertain, all the species are inhabitants of various species of willows. Their wings are for the most part beautifully iridescent.

Sp. 1. *Id. stigmatalis*. *Sub-fuscus*, mas, *maculâ stigmatali ochreâ*; fœm. *capite sub-ochreo, maculâ obcordatâ nigricante medio frontis, maculâque trigonatâ distinctâ prope oculos nigrâ*.

Long. corp. $2\frac{1}{2}$ lin. Exp. alar. 6 lin.

Male. Beneath pale ochreous. Head, particularly the face, bright ochreous; the forehead with a semicordate dusky mark, on each side with a small black excavation. Thorax posteriorly greyish brown variegated with fuscous; anteriorly pale ochreous with black spots. Scutellum pale ochreous; on each side at the base with a black trigonate spot; in the middle with a black fork-shaped mark, having on each side a fine black dot. Superior wings semitransparent; the place of the stigma with a brilliant ochreous spot; the costa obtusely dentated, at the base ochreous, in the middle black; the nervures dark fuscous; in the middle of the wing very dark, with fuscous diffused over the wing, forming, as it were, an oblique fascia; beyond which are three white nervures, forming an oblique hyaline fascia; the sutural margin dark fuscous. Inferior wings hyaline, with black nervures. Abdomen above black, with a slender pale margin to each segment. Tibiæ externally with black lines.

Female. Beneath dirty cream colour. Head very pale ochreous; the forehead in the centre with a large obcordate blackish mark, on

* Vide a paper of Professor Germar's in Silbermann's 'Revue Entomologique.' *Jassus lanio*, Fab., is the type.

each side with a small black excavation and a very distinct trigonate black or fuscous spot near the eyes. Prothorax posteriorly greyish brown, variegated with fuscous; anteriorly pale ochreous, with black spots. Scutellum pale ochreous; at the base on each side with a black trigonate mark; in the middle with a black, lanceolate, abbreviated line, the forked part being obsolete, having on each side a fine black dot. Superior wings semitransparent; the nervures pale brown, at the apex darker; the costa in the middle and the sutural margin variegated with dark fuscous. Inferior wings hyaline, with black nervures. Abdomen above black, with a slender pale margin to each segment. Intermediate and posterior tibiæ at the base with a black spot.

Willows, Battersea. August.

The male may be at once distinguished from all other British species by its yellow stigmatal spot. The female may be known by its more distinctly maculated head and thorax. I have deposited a specimen of the female in the Museum of this Society.

MACROPSIS*. Plate VII. fig. 3 and 4.

Caput latitudine thoracis; vertex perbrevis, arcuatus. Facies subrhomboidæ, apice truncata. Oculi mediocres. Ocelli 2 in facie inter oculos dispositi. Antennæ triarticulatae in excavatione infra oculos insertæ; articulus primus brevissimus, secundus cylindricus, ultimus setiformis, longitudine prothoracis. Prothorax transversus, subovatus, posticè excisus. Scutellum trigonum. Alæ superiores vel semicoriacæ vel membranacæ, abdomine longiores. Oviductus ferè rectus. Tibiæ posticæ valdè spinosæ et ciliatæ.

Head as wide as, or a little wider than the thorax; the anterior margin convex, the posterior concave. Face subrhomboidal, with the apex truncate. (Fig. 3, *b.* and fig. 4, *b.*) Eyes moderate. Ocelli 2, small, placed in the face between the eyes, to which they are closer than to one another. Antennæ placed in excavations at the side of the face beneath the eyes, having a lateral direction and stretching downwards; the two first joints very short, cylindrical; the terminal one a stoutish seta, about the length of the prothorax. Rostrum as long as the prothorax. Prothorax transverse, subovate, posteriorly excised. Superior wings much deflexed, longer than the abdomen, and either of a semicoriaceous or membranaceous texture. Inferior wings ample. Ovipositor long, nearly straight, or slightly curved downwards. (Fig. 3, *c.*) Ante-

* *μακρος* longus, *ὀψ* oculus.

rior and *intermediate tibiæ* apparently without spurs, though when viewed under a good magnifier, having their internal margin clothed with a series of short fine ciliæ, the intermediate tibiæ being less ciliated than the anterior. *Posterior tibiæ* but slightly curved, somewhat prismatical; externally, with the superior margin clothed with fine spinulæ, the inferior margin with eight or nine spines of nearly equal size, or stouter in the middle of the tibia; internally, with a scanty series of spinulæ directed downwards, and a dense row of cilia directed inwards; the apex surrounded with small spines. *Tarsi* narrow, triarticulate; the anterior and intermediate with the terminal, and the posterior with the basal joints longest.

Allied to *Agallia*, Curt., from which, however, it may be readily distinguished by the antennæ. In that genus they are inserted in the face between the inferior margin of the eyes; the two first joints very distinct and not concealed, the last a fine seta, as long as, or longer than the head, prothorax, and scutellum taken together: in this the two first joints are very short, and almost concealed in the excavation, the last joint the length only of the prothorax. From *Bythoscopus*, Germ., the length of the face and shape of the ovipositor, which in that genus is short and much curved upwards, will at once distinguish it.

In some species the superior wings are semi-coriaceous, in others with some portion hyaline, and in others wholly membranaceous. This genus will, however, be more correctly divided, from the form of the head and thorax, as follows:

A. (Fig. 3.) *Facies plana*; (Fig. 3, b.) *Prothorax transversus, obcordatus*.

Sp. 1. *M. virescens*, Fab. Flavo-viridis.

Long. corp. $2\frac{1}{4}$ lin., lat. corp. 1 lin.

Cicada virescens. *Fab., Ent. Syst.* 4. 46. 84. *Syst. Rhyng.* 79.

Yellowish green; superior wings semicoriaceous, subhyaline, the nervures towards the apex whitish green; inferior wings hyaline, with white nervures; apex of the outer sheaths of the ovipositor orange; the ovipositor castaneous.

Willows, Battersea, Coombe. July, August.

I have deposited a specimen in the Museum of this Society.

B. (Fig. 4.) *Facies disco tumido*; (Fig. 4, b.) *Prothorax transversus, ovatus, posticè excisus*.

Sp. 2. *M. flavicollis*, Linn. Fusco-ferrugineus, capite thoraceque viridi-flavis.

Long. corp. $2\frac{1}{2}$ lin., lat. corp. 1 lin.

Cicada flavicollis. Linn., *Syst. Nat.* 709. *Faun. Suec.* 891. Schæff. *Icon*.

A very variable species, sometimes ferruginous, with the head, thorax, and scutellum greenish yellow; sometimes entirely ferruginous; the superior wings generally with large diaphanous spots.

Common near London, at Birch and Coombe Woods. July.

There are many other varieties, but it seems unnecessary for me now to describe them. Fabricius's *Cicada flavicollis* seems distinct, as are probably some of Schæffer's varieties. The unicolorous varieties resemble some species of the first division; the sectional character must therefore be attended to. I have deposited a nearly typical specimen in the Museum of this Society.

BATRACOMORPHUS*. Fig. 5.

Corpus depressum. *Caput thorace vix angustius; vertex lunatus. Facies transversa, subovata. Oculi minimi. Ocelli 2 in facie margine superiori dispositi. Antennæ in excavatione inter oculorum marginem inferiorem insertæ; articulus primus brevissimus, secundus cylindricus, ultimus setiformis. Prothorax transversus, subovatus, posticè excisus. Scutellum magnum, subtrigonum. Alæ superiores longitudine abdominis. Oviductus falcatus (fig. 5, b). Tibiæ intermediæ internè et externè paucis spinulis; posticæ externè bifariam spinosæ, internè spinulosæ et ciliatæ.*

Body depressed. Head nearly as wide as the thorax, the anterior margin very convex, the posterior slightly concave, forming a lunate or crescent-shaped vertex. *Eyes* small. *Ocelli* 2, placed near the superior margin of the face. (Fig. 5 a.) *Face* transverse, subovate. *Antennæ* inserted in large excavations in the face between the inferior margin of the eyes, short, triarticulate; the first and second joints very short, cylindrical, the last a short stout seta. *Rostrum* rather shorter than the prothorax. *Prothorax* transverse, ovate, posteriorly gently excised. *Scutellum* large, broad, trigonate. *Superior wings* slightly deflexed; the apex of the suture with small overlapping projections. *Inferior wings* ample. *Ovipositor* much curved upwards. *Anterior tibiæ* internally densely ciliated. *Intermediate tibiæ* both externally and internally with a few small spines. *Posterior tibiæ* curved, compressed; externally with two rows of strong spines; internally with a row of spinulæ directed downwards, and a series of ciliæ directed inwards. *Tarsi* triarticulate; the anterior and intermediate

* Βατραχος rana, μορφη forma.

with the terminal, and the posterior with the basal joints longest.

This genus partakes of the characters of two groups: by its depressed form, lunate vertex, and slightly spiny intermediate tibiæ it approaches that to which Professor Germar has restricted the name of *Iassus*, (*Phrynomorphus*, Curt.) &c.; but the position of the antennæ, ocelli, &c. evidently allies it to *Bythoscopus*, Germ., from which its depressed form will at once distinguish it. There is but one British species, which appears to be undescribed.

Sp. 1. *B. irroratus*. Flavo-viridis; alis superioribus fusco-punctatis. Long. corp. $2\frac{1}{2}$ lin., lat. corp. $1\frac{1}{4}$ lin.

Yellowish green; superior wings finely sprinkled with minute fuscous punctures.

Three specimens were taken by Mr. Waterhouse near London, to whom I am indebted for the specimen I possess. A specimen will be found in the Museum of this Society, presented by that gentleman.

XII. *A few Observations upon the Habits of the Indigenous Aculeate Hymenoptera, suggested by M. de St. Fargau's Paper upon the Genus Gorytes in the first Number of the 'Annales de la Société Entomologique de France.'*
By W. E. SHUCKARD, Esq., M.E.S.

[Read March 3, 1834.]

IT is rather a remarkable circumstance, that entomologists in general, in this country, have hitherto paid but little attention to the Aculeate Hymenoptera; a tribe so peculiarly interesting from its œconomy and habits, that we might reasonably have expected that some portion of the attention which has been lavished upon several other orders should have turned upon this. We might easily account for this neglect, were there much difficulty in observing or collecting these insects; but when we remember that every sunny bank and sandy spot will furnish them, I am induced to attribute this general indifference, partially, to the deficiency of an easily accessible and collective work upon the subject. But it is far from being thus satisfactorily answered, for we possess a work upon a portion of this tribe,—the Bees of Great Britain,—which, I conceive, has never been